diastolic blood pressure were 130.14 mmHg and 73.48 mmHg respectively. Incidences of co-morbidities was as follow: ischemic heart disease in 49.3%, arterial hypertension in 34.12%, diabetes in 28.03%, atrial fibrillation in 9.94% and renal insufficiency in 8.55%. In 60.7% of patients we measured blood pressure below 140/90 mmHg (mean 116.94/70.4 mmHg) while in 39.9% blood pressure was higher than 140/90 mmHg (mean 159.89/101.14 mmHg). Average blood pressure differed significantly (p<0.001) between two groups. There was a significantly difference on prescript of ACE inhibitors (76.09% vs 57.33%), beta blockers (70.3% vs 52.78%), calcium channel blockers (4.69% vs 17.02%) and digoxine (2.94% vs 1.68%). Patients with lowest blood pressure were less often treated with furosemide (28.33% vs 45.63%, p<0.05) but more often with spironolactone (55.78% vs 32.37%, p<0.05).

Conclusions: The management of blood pressure in chronic heart failure is very important and due to an adequate and optimal pharmacological treatment.

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Association between hyperuricemia and prognosis in Moroccan patients with heart failure

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Purpose: Hyperuricemia could be a valid prognostic marker and useful for metabolic, hemodynamic, and functional staging in chronic heart failure. hyperuricemia is associated with deleterious effects on endothelial dysfunction, oxidative metabolism, platelet adhesiveness, hemorheology, and aggregation

Methods: The purpose of this study was to determine association between hyperuricemia and prognosis in 1509 patients with chronic heart failure, during median follow-up of 32 months. Chi2 test was used, a difference was statistically considered significant if p<0.05.

Results: The prevalence of hyperuricemia was 10.73% (162), the mean age was 64.62 years (37-100) with a male predominance (64.81%). The mean ejection fraction was 32.47%. Thirty eight percent patients have hypertension and 21.6% have diabetes. There was a correlation between hyperuricemia and severity of heart failure compared with normouricemia evaluated by: NYHA functional class, [75,72% patients with hyperuricemia were in class II vs 61.03% for normouricemia (p= 0.0093), 35,69% in class III vs 25.03% (p=0.0095) and 4.98% in class IV vs 2.09% (p=0.0091)], renal dysfunction: mean creatinine was at 16.25 for hyperuricemia vs 11 mg per litr for normouricemia, use of diuretics 61.11% vs 40.46% (p=0.0059), congestive heart failure in 24.07% vs 12.04% (p=0.0086)

Conclusions: High serum uric acid levels are a strong, independent marker of impaired prognosis in patients with chronic heart failure

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Incidence and predictors of hyperkalaemia in patients with chronic heart failure

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Background: Heart failure (HF) patients are particularly susceptible to electrolyte abnormalities and especially to hyperkalemia. Potassium (K) balance may be lost both through the neurohormonal mechanisms and through the drugs used in the treatment of this illness. Both hypokalaemia and hyperkalaemia are associated with increased mortality, mainly due to a higher risk of potentially fatal arrhythmia.

Our goal was to explore the incidence and predictors of hyperkalemia in a broad population of heart failure patients.

Methods: This was a retrospective study of 1371 consecutive patients admitted to the therapeutic unit for heart failure between May 2006 and September 2010. Patients on dialysis and those with an estimated glomular filtration rate (GFR)<10ml/min/1,73m² were excluded. Complete history on admission, age, sex, body weight, physical findings, comorbidities, and laboratory information were collected.

Results: The mean age of our population was 64.4 years (16-100), with a male predominance (64.6%). In 18 patients (1.3%) K was <3.0 mmol/L, and in 424 patients (30.9%) K was >5.0 mmol/L. Independent of treatment assignment, patients at highest risk for hyperkalemia were those with age 75 years (28.5%), diabetes (33.9%), male gender (25.5%), high potassium at baseline (24.5%), renal dysfunction (44.5%) (identified by creatinine 2 mg/dl or GFR 30 ml/min/1.73m²), symptomatic HF (28.1%) and those receiving therapy with angiotensin-converting enzyme (ACE) inhibitors (25.3%) or spironolactone (27.2%).

Conclusion: Changes in potassium ion may cause life-threatening arrhythmias**.** The risk of hyperkalemia is increased in symptomatic heart failure patients with comorbidities or combined renin-angiotensin-aldosterone system (RAAS) blockade. A favorable balance of benefit and risk requires clinical vigilance and closer laboratory monitoring, particularly among these patients.

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Prognostic value of right ventricle function assessed by 2d strain in chronic heart failure

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Background: Chronic Heart failure (CHF) has a poor prognosis. Most of right ventricular (RV) echocardiographic variables measure only basal or annular RV function. Global 2D strain, is used to detect the first signs of LV dysfunction. Our hypothesis was that RV-2Dstrain, allowing to measure basal to apical RV lateral wall systolic function, was lower in CHF than in controls and was a better predictor of cardiac events in CHF than other RV echo-variables.

Methods: 43 controls and 118 chronic heart failure patients with sinus rhythm, optimal medication and stabilized at east for one month (CHF) were prospectively enrolled from November 2005 to April 2008 in our CHF clinic. All patients had a clinical, biological and echocardiographic assessment. 2D RV strain and four chamber LV strain, left ventricle and left atria dimensions, diastolic LV function, tricuspid annular plane excursion, peak systolic velocity of the tricuspid annular using tissue Doppler imaging were assessed. The primary endpoint was death or urgent transplantation or ventricular assist device or an acute heart failure episode.

Results: RV-2Dstrain was measurable in 39 controls (57.5±17.2 years, 50% men) with a median and 95% CI of: –30% (–39%; –20%). RV-2Dstrain was measurable in 104 CHF, their age and left ventricular ejection fraction mean +/– SD were 57.0±10.9 years and 28.8±8.2%. 80 % were men. RV-2Dstrain mean and 95%CI in CHF was –19%(–34%; –9%). Prevalence of RV dysfunction was 52% in CHF if –20% was used as threshold. During a mean+/– SD follow-up of 37+/–14 months for the patients without events. 57 patients reached the primary endpoint. On Cox proportional hazards multivariate analysis only RV-2Dstrain and logBNP were independent predictor of outcome. The threshold of RV-2Dstrain defined using ROC curve was –21%. Patients with RV-2Dstrain >–21% had the worse prognosis (X2-log-Rank test=14, p<0.0001) than patient with RV-2Dstrain <–21%.

Conclusion: RV 2D strain is a strong independent predictor of outcome in HF and appears to be superior to the other RV or LV systolic echocardiographic variables.

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Insight into the roles of qSox1 during the acute injury

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Biochemical marker testing has revolutionized the approach to diagnosis and management of heart failure (HF). Natriuretic peptides are routinely used, nevertheless better biomarkers are needed to improve diagnosis and guide therapy. Applying proteomics to clinical samples from patients with acute heart failure (AHF), Quiescin Q6 (QSOX1) emerged as a promising marker to differentiate dyspnea caused by acute decompensated